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Biotechnology Notes

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Biotechnology Notes, a compilation of agency activities, news events, and upcoming meetings, is prepared for members of the U.S. Department of Agriculture's (USDA) Committee on Biotechnology in Agriculture (CBA) by USDA's Office of Agricultural Biotechnology (OAB).

INSIDE USDA

BIOTECH COUNCIL TO EXPAND ROLE

At the December 18 meeting of USDA's Biotechnology Council, chairman Alvin Young and Charles Hess, Assistant Secretary for Science and Education, proposed that Council members examine several biotech issues and make their recommendations to the Committee on Biotechnology in Agriculture (CBA), the Council's parent group. These recommendations could assist the CBA in making policy decisions for the Department. Some examples of issues the Council may study include: interagency coordination and harmonization of biotechnology policy; a Departmental position on a recent report on food safety; and patenting, public information, and commercialization.

ABRAC SET TO MEET IN FEBRUARY

The next meeting of USDA's Agricultural Biotechnology Research Advisory Committee (ABRAC) is scheduled for February 20-21. The location will be Conference Room A, 10th floor, Aerospace Building, 901 D Street, S.W., Washington, DC 20024. This begins ABRAC's fourth year as the Secretary of Agriculture's scientific advisory body for biotechnology issues.

The upcoming agenda includes discussion of cooperative activities between ABRAC and the Environmental Protection Agency's (EPA) Biotechnology Science Advisory Committee. Other items include an update of the state of the draft research guidelines, and reports on pre-working groups.

The meetings are open to the public and begin at 9 a.m. both days. They adjourn at 5 p.m. on February 20 and at 3 p.m. on February 21. For more information, call Alvin Young, ABRAC Executive Secretary, at 202-447-9165.

NO MAJOR PROBLEMS, CONCLUDES WORKSHOP

Those who attended last month's workshop on "Biosafety Issues Related to Large-Scale Plantings of Transgenic Corn and Wheat" said

no major environmental or agricultural safety problems were likely in North America for large-scale field tests of transgenic corn or wheat. Those who attended represented government, academia, industry, and environmental groups. The workshop was sponsored by USDA's Animal and Plant Health Inspection Service (APHIS), Biotechnology, Biologics, and Environmental Protection division, in Keystone, Colo. A summary document describing the deliberations and conclusions should be available February 1991. For more details, call APHIS at 301-436-7601.

NEW ORGANIZATION CHART AVAILABLE

Confused about who does what at USDA? If so, relief is at hand in the form of a new USDA organization chart just published in USDA News, the employee news publication. A limited number of extra copies are available. If you'd like one, please call 202-447-9165.

NEWS AROUND THE COUNTRY (AND THE WORLD)

BIORESEARCH IRELAND: A PARAGON OF COORDINATION

Ireland has developed a unique model for carrying out biotechnology programs in which both academia and industry work together to achieve mutually beneficial goals. This unified approach is spearheaded by BioResearch Ireland (BRI), a consortium of leaders from universities, government, and industry who develop, promote, and commercialize the biotechnology products that come out of Irish universities and research institutions.

To accomplish these goals, BRI set up research centers in five universities, each specializing in different fields. The centers are staffed and managed by BRI and much of the research is performed using equipment and facilities funded by BRI. Progress at the centers is reviewed twice a year. New project areas are identified when there appears to be a specific market interest. Product application thus becomes integrated into the program. Any research results deemed novel and inventive are then passed on to a patent agent. In 1989, BRI filed seven patent applications, including one for an improved fish vaccine and another that improves on current methods used to prepare DNA probes for microorganisms.

Those wishing more information about BioResearch Ireland may write to EOLAS, Glasnevin, Dublin 9, Ireland; or phone 353-1-370177. The FAX number is 353-1-370176.

BRINGING HOME THE BACON

In an effort to see how consumers feel about meat from hogs produced with porcine somatotropin (pST) versus untreated meat, Iowa State University scientists asked 114 households in Des Moines to do a taste test. Participants evaluated pairs of cooked, boneless, loin roasts, one from a pST-produced pig and the other from a pig that did not receive the naturally occurring protein. The tasters did not know which roast they were eating. The results showed the tasters were unable to find any significant difference between the two roasts as far as flavor, tenderness, and juiciness were concerned. Similar taste tests are now planned for other U.S. cities.

Although pST is not yet commercially available, the Iowa State University news service reported that meat from animals that have received the protein can be used for research purposes under Food and Drug Administration regulations.

BST SAFE, SAYS NIH PANEL

A panel of experts convened by the National Institutes of Health, Bethesda, Md. to assess scientific data pertaining to the use of recombinant bovine somatotropin (rBST) in dairy cows, concluded that milk and meat from rBST-treated cows are safe for consumption.

At a press conference held on the NIH campus December 7, panel chairman Melvin Grumbach, chairman emeritus of pediatrics at the University of California at San Francisco, said "The evidence clearly indicates that the overall composition and nutritional quality of milk and meat from rBST-treated cows is equal to that from untreated cows." The panel also said that although the synthetic hormone "does not appear to affect appreciably the general health of dairy cows, available evidence does not permit a conclusion regarding its effect on the incidence of mastitis." The panel recommended more research on mastitis and more information about the concentrations and possible effects of increased amounts of IGF-I (insulin-like growth factor-I).

REGULATORS MEET IN BRUSSELS

Regulatory officials from USDA's APHIS and the EPA met with their counterparts from the European Community (E.C.) December 11 in Brussels, Belgium to discuss tests and techniques used to detect microorganisms in the environment. Both the U.S. and the E.C. delegations presented papers on the subject and are working to consolidate their findings into one report by the time they meet again this spring in Washington, DC. At that time, the delegations (formally called the U.S.-E.C. Permanent Technical Group on Biotechnology and the Environment) plan to discuss other technical

aspects of biotech field tests, such as sampling techniques, as well as issues pertaining to taxonomy. For more details, call John Payne (301-436-8378) at APHIS, head of the U.S. team.

CAFÉ AU BIOTECH, ANYONE?

Using techniques such as tissue culture, protoplast fusion, and genetic engineering, researchers around the world are hoping to modify the Coffea plant. According to the September 1990 issue of Biotechnology and Development Monitor, a Dutch publication, good results have been reported using tissue culture to develop rust resistant varieties. Coffee rust is a fungus that attacks the leaves of coffee plants and has caused extensive damage to crops in Southeast Asia. Other researchers report using rDNA technology to reduce the caffeine content of coffee and to increase extractable solids. The article points out that while applications of biotechnology to coffee are progressing, no commercial impact is expected before the turn of the century.

CANADIAN BIOTECH CENTER MAKING TRACKS

The Guelph-Waterloo Plant Biotechnology Centre in Guelph, Ontario, is the focus of much activity these days, coordinating research projects, advising industry, identifying funding sources, and promoting technology transfer. The Center's diversity stems from a broad base of support available at four universities and from Agriculture Canada, whose role is similar to that of USDA. According to the Center, forestry and canola breeding are two of its strongest research programs. To learn more about the Center, write to K. P. Pauls, Director, Plant Biotechnology Center, University of Guelph, Guelph, Ontario N1G2W1, Canada.

IN CASE YOU WEREN'T THERE

● "Biotechnology for Control of Growth and Product Quality in Meat Production: Implications and Acceptability" was the topic of an international symposium held December 5-7 in Rockville, Md. Keynoter Charles Hess, USDA Assistant Secretary for Science and Education, discussed the implications of biotechnology to animal agriculture, such as the possibility of genetically modifying ruminant microorganisms to shunt methane into energy rather than releasing it as a gas, or breeding animals to be more resistant to severe climates. He also said the single most critical issue facing biotechnology is "the anxiety of a concerned public" and that public education programs could be effective in chipping away at the myths and misperceptions. The proceedings of the symposium,

along with conclusions, are scheduled to be published this May. For details, call Gary Weber, USDA Extension Service, at 202-447-2677.

NEW PUBLICATIONS

- Assessing Ecological Risks of Biotechnology. Edited by Lev R. Ginzburg, State University of New York, Stony Brook, New York. Published by Butterworth-Heinemann, 1991. Includes a chapter on "Regulation and Oversight of Biotechnological Applications for Agriculture and Forestry" prepared jointly by OAB Director Alvin Young; Maryln Cordle, OAB senior regulatory specialist; and John Payne, APHIS senior plant pathologist. To order a copy write to Butterworth-Heinemann, 80 Montvale Ave., Stoneham, Mass 02180.

- Risk Assessment in Genetic Engineering: Environmental Release of Organisms. Edited by Morris Levin and Harlee Strauss. McGraw-Hill, Inc. January 1991. Includes a chapter on "Safety Considerations in the Evaluation of Transgenic Plants for Human Food," co-authored by Daniel Jones, OAB Deputy Director, and James Maryanski, Biotechnology Coordinator at the Food and Drug Administration. For ordering information, write to McGraw-Hill, Inc., 1221 Avenue of the Americas, New York, NY 10020.

- Biotechnology R&D in the EC. Volume 1 of the final report which summarizes the research results obtained from January 1985-December 1989 in the framework of the Biotechnology Action Programme. 1990. Edited by A. Vassarotti and E. Magnien. To order a copy, write to Elsevier, Scientific Editions, 29 Rue Buffon, 75005 Paris, France.

- "Risk Assessment in Agricultural Biotechnology: Proceedings of the International Conference." 1990. Proceedings of conference held at University of California, Davis campus, August 1988. Included are presentations that were given by Charles Hess, USDA Assistant Secretary for Science and Education; John Patrick Jordan, Administrator of USDA's Cooperative State Research Service; and Alvin Young, Director of USDA's Office of Agricultural Biotechnology. For information about ordering a copy, call 415-642-2431. Refer to publication number 1928.

- "Improving Dialogue with Communities: A Risk Communication Manual for Government." This manual summarizes lessons in environmental health risk communication based on interviews with practitioners from across the country. Prepared by the New Jersey

Department of Environmental Protection. December 1990. To order a copy call 609-984-6072.

● Americans in Agriculture: Portraits of Diversity, is the title of USDA's 1990 Yearbook of Agriculture. One part is devoted to science and highlights the accomplishments of researchers who use biotechnology to study plants, animals, and insects. The yearbook also celebrates the centennial of the 1890 Land-Grant Colleges and Universities. Copies are available for \$10 from the Superintendent of Documents, Washington, DC 20402. It is also sold at government bookstores in many cities.

● "Inventory of Agricultural Research, Fiscal Year 1989." This is a collection of statistical tables compiled annually since 1966 on research conducted by USDA's state agricultural experiment stations, forestry schools, 1890 land-grant colleges and universities, schools of veterinary medicine, and other institutions. To obtain a copy, send a self-addressed label to John Myers, Current Research Information System, CSRS-USDA, 5th floor NAL building, Beltsville, MD 20705.

UPCOMING MEETINGS

Jan. 6-9: BioEast '91. Washington, DC 212-996-5679.

Jan. 6-9: The Second U.S.-Japan Symposium on Biotechnology: Control of Biological Processes. St. Petersburg, Fla. Sponsored by Tampa Bay Research Institute. For more information call 813-576-6675.

Jan. 10-17: The Genetic Dissection of Plant Cell Processes. Keystone, Colo. Write to Keystone Symposia, 2032 Armacost Ave., Los Angeles, Calif. 90025; or call 213-207-5042.

Jan. 22-24: Seventh International Symposium on Separation Science and Biotechnology. Fort Lauderdale, Fla. Write to J. Cunningham, Barr Enterprises, P.O. Box 279, Walkersville, Md. 21793; or call 301-898-3772.

Jan. 21-22: Workshop on Draft Biotechnology Products Regulations Under the Canadian Environmental Protection Act. Ottawa, Ontario, Canada. For more information, call Sheila Forsyth in Canada at 819-953-1678. The FAX number is 819-953-7155.

Jan. 31-Feb. 1: Financing Biotechnology Companies in the 1990's: A Hands-on Workshop for Senior Executives. San Francisco, Calif. Sponsored by the Association of Biotechnology Companies; co-sponsored by Lehman Brothers. For details call 202-234-3330.

Feb. 20-21: Meeting of USDA's Agricultural Biotechnology Research Advisory Committee (ABRAC). Conference Room A, 10th floor, Aerospace Bldg., 901 D Street, S.W., Washington, DC 20024. Open to the public. The meeting begins at 9 a.m. both days and adjourns at 5 p.m. on February 20 and at 3 p.m. on February 21. For more information, call Alvin Young, ABRAC Executive Secretary, at 202-447-9165.

March 25-27: Third PaineWebber Bio/Technology Conference. Coronado, Calif. Write to Stelios Papadopoulos, PaineWebber, P.O. Box 1406, New York, N.Y.; or call 212-713-6275.

BIOTECHNOLOGY NOTES is prepared by Marti Asner, public affairs specialist in USDA's Office of Agricultural Biotechnology. Suggestions for items to include in future issues are always appreciated and may be sent to USDA/OAB, Room 324-A, Administration Building, 14th and Independence Ave., S.W., Washington, DC 20250; or phone 202-447-9165. The FAX number: 202-447-8029.

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